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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,142	03/24/2004	Wen-Jian Lin	A-8997	2763

7590 06/14/2005

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EXAMINER

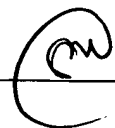
HASAN, MOHAMMED A

ART UNIT PAPER NUMBER

2873

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/807,142	Applicant(s) LIN ET AL.	
	Examiner Mohammed Hasan	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 5, 7 - 13, 15 is/are rejected.
- 7) ☒ Claim(s) 6 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/12/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt of acknowledged of papers submitted under 35 U.S.C. 119 (a) – (d), which papers have placed in the file.

Oath/Declaration

2. Oath and declaration filed on 3/24/2004 is accepted.

Information Disclosure Statement

3. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 5/12/2004 have all been considered and made of record (note the attached copy of form PTO – 1449).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 4, 7, 8, 10, 11, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art in view of Kuwagaki et al (4,310,220).

Regarding claim 1, Admitted Prior Art discloses (refer to figures 1A and 1B) an optical interference display panel (100) having an optical interference reflection structure (page 1, lines 16 – 18) and a substrate 110. Admitted Prior Art discloses all of the claimed limitations except a protection structure adhered to the substrate with an adhesive. However, Kuwagaki et al discloses (refer to figure 1) a protection structure (7) and an adhesive (4) (column 3, lines 16 – 33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a protection structure and an adhesive in to the Admitted Prior Art an optical interference display panel for the purpose of improved resistance effect of a temperature change as taught by Kuwagaki et al (column 1, lines 59 – 60).

Regarding claim 2, Admitted Prior Art discloses (refer to figures 1A and 1B) the optical interference reflection structure comprises: a first electrode (104), a second electrode (102), wherein the second electrode is situated in parallel with the first electrode substantially and a support (106) located between the first electrode and the second electrode to form a cavity (108) (page 1, lines 16 – 22).

Regarding claim 3, Kuwagaki et al discloses the protection structure (7) is a U – shaped protection structure (as shown in figure 1).

Regarding claim 4, Kuwagaki et al discloses a material of the protection structure (7) is glass (column 3, line 25).

Regarding claim 7, Kuwagaki et al discloses, wherein the adhesive comprises a UV glue or a thermosetting adhesive (column 7, lines 8 – 11).

Regarding claim 8, Admitted Prior Art discloses (refer to figures 1A and 1B) an optical interference display panel (100) having an optical interference reflection structure (page 1, lines 16 – 18) and a substrate 110. Admitted Prior Art discloses all of the claimed limitations except a protection structure and an adhesive adhered a protection structure to the substrate. However, Kuwagaki et al discloses (refer to figure 1) a protection structure (7) and an adhesive (4) (column 3, lines 16 – 33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a protection structure and an adhesive in to the Admitted Prior Art an optical interference display for the purpose of improved resistance effect of a temperature change as taught by Kuwagaki et al (column 1, lines 59 – 60).

Regarding claim 10, Kuwagaki et al discloses, the protection structure (7) is a U – shaped protection structure (column 3, lines 16 – 33) (as shown in figure 1).

Regarding claim 11, Kuwagaki et al discloses, a material of the protection structure (7) is glass (column 3, line 25).

Regarding claim 13, Kuwagaki et al discloses (refer to figure 1) wherein the adhering step comprises adhering the protection structure (7) and the substrate with an adhesive (4) (column 3, lines 16 – 33).

Regarding claim 15, Kuwagaki et al discloses, wherein the adhesive comprises a UV glue or a thermosetting adhesive (column 7, lines 8 – 11).

5. Claims 5 and 12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Kuwagaki et al (4,310,200).

Regarding claims 5 as applied to claim 1, claim 12 as applied to claim 8, Kuwagaki et al discloses (refer to figure 1) the substrate and the protection structure 7 are airtight (column 3, lines 16 – 33). Kuwagaki et al discloses all of the claimed limitations except to prevent the optical interference reflection structure from being damaged by an external environment. However, Kuwagaki et al discloses, a seal means (4) is provided for bonding the flat glass substrate and dish shaped glass (column 3, lines 26 – 29) .

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an adhesive in to the optical interference reflection structure from being damaged by an external environment since a sealer bonding the flat glass substrate and dish shaped glass as taught by Kuwagaki (column 3, lines 26 – 29).

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art in view of Kuwagaki et al (4,310,220) further in view of Alwan (6,120,339).

Regarding claim 9 as applied to claim 8, Admitted Prior Art and Kuwagaki et al discloses all of the claimed limitations except a sacrificial layer and removing the sacrificial layer by a release etching process. However, Alwan discloses (refer to figure 6) a sacrificial layer (80) and removing the sacrificial layer by a release etching process (column 8, lines 61 – 67, column 9, lines 1 – 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a sacrificial layer in to the Admitted Prior Art an optical interference display panel for the purpose of low-power, high resolution high-contrast display panel as taught by Alwan (column 1, lines 52 – 54).

Allowable Subject Matter

7. Claims 6 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails teach the adhesive comprises spacers and the spacers keep a predetermined distance between the protection structure and the substrate to prevent the protection structure from damaging the optical interference reflection structure.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin et al (6,882,458 B2) discloses a structure of an optical interference display cell.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272- 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MH
June 7, 2005


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800